Title (en)

BIT-ALIGNED HEADER COMPRESSION FOR CCN MESSAGES USING DICTIONARY

Title (de)

BIT-AUSGERICHTETE HEADERKOMPRESSION FÜR CCN-NACHRICHTEN MIT WÖRTERBUCH

Title (fr)

COMPRESSION D'EN-TÊTE CADRÉE PAR BIT À L'AIDE D'UN DICTIONNAIRE POUR MESSAGES CCN

Publication

EP 3166277 A1 20170510 (EN)

Application

EP 16194940 A 20161020

Priority

US 201514932588 A 20151104

Abstract (en)

One embodiment provides a system in a first node that facilitates efficient packet forwarding. During operation, the system stores, in a storage device in a first node, a static dictionary comprising a mapping between a type and length (TL) string and a byte-aligned compressed replacement string. The system encodes the byte-aligned compressed replacement string based on an encoding technique to generate a bit-aligned encoded replacement string and stores a mapping between the encoded replacement string and the TL string in an encoded dictionary. If the system identifies the TL string in a packet, the system replaces the TL string with the encoded replacement string and transmits the packet to a second node storing the encoded dictionary in a local storage device, thereby facilitating bit-aligned compression of a TL string.

IPC 8 full level

H04L 29/06 (2006.01)

CPC (source: EP KR US)

H03M 7/40 (2013.01 - KR); **H04L 47/82** (2013.01 - KR); **H04L 69/04** (2013.01 - EP KR US); **H04L 69/22** (2013.01 - EP US)

Citation (applicant)

- US 201313847814 A 20130320
- US 33817508 A 20081218

Citation (search report)

- [IY] US 2002059462 A1 20020516 - HANNU HANS [SE], et al
- [A] US 8847797 B1 20140930 - BARR DAVID MICHAEL [AU]
- [A] US 2010246439 A1 20100930 - HEATH GREGORY R [US], et al
- [A] GOHARIAN GROSSMAN ET AL: "Efficiency -Compression (COSC 488) Nazli Goharian Efficiency Techniques @BULLET Indexing #Compression @BULLET Index Pruning (Top Doc) @BULLET Efficient Query Processing - Query thresholding - Partial result set processing", 7 November 2013 (2013-11-07), XP055351295, Retrieved from the Internet <URL:http://people.cs.georgetown.edu/~nazli/classes/ir-Slides/Efficiency-Compression-13.pdf> [retrieved on 20170303]
- [A] L-E JONSSON G PELLETIER K SANDLUND ERICSSON: "The RObust Header Compression (ROHC) Framework; rfc4995.txt", NETWORK WORKING GROUP RFC 1717, INTERNET SOCIETY (ISOC) 4, RUE DES FALAISES CH- 1205 GENEVA, SWITZERLAND, CH, 1 July 2007 (2007-07-01), XP015052529, ISSN: 0000-0003
- [Y] HANNU J CHRISTOFFERSSON ERICSSON S FORSGREN K-C LEUNG TEXAS TECH UNIVERSITY Z LIU NOKIA R PRICE SIEMENS/ ROKE MANOR H: "Signaling Compression (SigComp) - Extended Operations; rfc3321.txt", NETWORK WORKING GROUP RFC 1717, INTERNET SOCIETY (ISOC) 4, RUE DES FALAISES CH- 1205 GENEVA, SWITZERLAND, CH, 1 January 2003 (2003-01-01), XP015009191, ISSN: 0000-0003
- [A] ANONYMOUS: "Type-length-value - Wikipedia", 13 April 2015 (2015-04-13), XP055350805, Retrieved from the Internet <URL:https://en.wikipedia.org/w/index.php?title=Type-length-value&oldid=656300079> [retrieved on 20170301]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3166277 A1 20170510; JP 2017092958 A 20170525; KR 20170052475 A 20170512; US 10021222 B2 20180710; US 2017126854 A1 20170504

DOCDB simple family (application)

EP 16194940 A 20161020; JP 2016209289 A 20161026; KR 20160140783 A 20161027; US 201514932588 A 20151104